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IHSA-82-038

30 SEP 1982

MEMORANDUM FOR: _____   STAT

                  Chief, CSPO/ODP

FROM: _____   STAT

               Information Handling Systems Architect

SUBJECT: Selection of DBMS and Word Processing
                  Facilities for SAFE

1.   This memorandum is to apprise the CSPO of Strategic Planning with respect to two IHSA matters that directly relate to the SAFE Project. What SAFE does with respect to these matters is particularly important since it is the principal facility under development which provides these capabilities. Meeting the Strategic Plan objectives in these two areas is heavily dependent on CSPO decisions with respect to SAFE.

2.   One element of the Strategic Plan for IHSs is that the general purpose DBMS that is selected for SAFE will be made broadly available within the Agency. ODP has agreed to this element. One purpose of this memorandum is to assure that CSPO is aware of a few of the characteristics which, the IHSA staff believes, are important for accepted general use of this DBMS. It is believed that increasing the importance of these characteristics in your evaluations will not modify the candidate list, since our investigations indicate that several of the candidates provide the characteristics sought.

3.   There are three characteristics which we believe are important in the general use environment and which should merit significant weight in the selection of the SAFE DBMS for structural files. These are:

   o <u>Powerful User Support Environment</u>: A powerful user support environment to support user developed applications. Included should be facilities such as a non-procedural, higher order, query processing language, data base design tools and report writers.

   o <u>Graphics Storage Capability</u>: A facility to couple the DBMS to existing graphics storage and generation facilities, and a future capability to provide integral graphics storage. The latter should be evidenced by a significant, existing corporate program of investment in the development of such a facility. (The graphics capability sought can generally be described as being at the medium resolution, bit mapped level. It does not include images or half-tones.)

   o <u>Independably Accessable, Integral Data Dictionary</u>: A data dictionary capability which can be used independently as well as integrally.

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4. The Agency word processing facility that we foresee for the period of the Strategic Plan ultimately needs to provide a number of characteristics in addition to all the functional capabilities normally sought. Principal among them are that it be a user friendly facility, using function keys for the principal editing functions; that it incorporates graphics in an integrated text/graphics editing process; that it is well documented, and provides a CAI package for training. Relevant to these requirements is the fact that the Strategic Plan calls for acquisition of a new family of terminals starting in 1985. Word processing is one of the functional requirements for this family. This is in harmony with what we see emerging in the industry today. All the projected new offerings contain a powerful word processing facility. They also have the terminal processing power to support facilities that are currently only practical on central facilities, such as spelling and global operation functions.

5. In your last SAFE progress briefing, you indicated that all current word processing development would be provided by the SCRIPT family since TRW had nothing better to propose. The SCRIPT/EDIT family (SCRIPT, SCRIPTX, SCRIPTS, SCRIPT6, SCRIPTW, EDIT, SEDIT, and XEDIT) will certainly meet the needs of SAFE through Enhanced Capability. Although functionally powerful, it does not provide the four characteristics previously mentioned. The investment required to merge the SCRIPT/EDIT family into a single powerful capability, make it user friendly, provide a single set of comprehensive high quality documentation, and CAI would be high. Additionally, the SCRIPT/EDIT family does not contain an integrated graphics facility, and we are unaware of any basis for assuming that the developers might provide an integrated text/graphics capability for these facilities in the near future. Thus, planning to provide an integrated text/graphics capability past the Enhanced Capability would have to look beyond SCRIPT/EDIT.

6. Given these considerations relevant to the word processing facility, we agree with the CSPO decision not to pursue a new, centrally located, word processing facility for SAFE. We believe that a distributed function, hosted in the next generation of terminals appears to be the most attractive approach for the follow-on facility. Central facilities would have to be provided for file transfer and storage relevant to terminal-hosted word processing, of course. Also, the SCRIPT/EDIT family would have to remain an available resource through the 80's, since there would unavoidably be an extended transition period as the new terminals are introduced. Thus, we believe, SAFE should incorporate the next generation of terminals into its post-Enhanced Capability planning, particularly with respect to providing word processing.

7. We appreciate your consideration of these factors in the SAFE development process.

STAT

cc: D/ODP
      DDI/ASG

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Copy of Draft Strategic Plan enclosed

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